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09/451,097	11/30/1999	SHUICHI WATANABE	0033-0630P	8589

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EXAMINER

LEE, RICHARD J

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2621

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 09/451,097
Filing Date: November 30, 1999
Appellant(s): WATANABE, SHUICHI

Terrell C. Birch
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed December 15, 2005 appealing from the Office action mailed May 20, 2005.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

5,754,233	TAKASHIMA	5-1998
6,400,890	NAGASAKA et al	6-2002

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claim 37 is rejected under 35 U.S.C. 102(b) as being anticipated by Takashima of record (5,754,233).

Takashima discloses a compression encoding apparatus and recording apparatus and the same method of associating frame feature values with a plurality of frames of image data (see Figure 11, column 14, line 57 to column 15) as claimed in claim 37, comprising the same calculating statistics of motion vector information related to the image data (i.e., as provided by motion estimation circuit 103 of Figure 11, since scene changes are detected by exploiting of motion vector detection operations performed by motion estimation circuit 103, with the exploiting of motion vectors providing the calculating of statistics of motion vector information, as claimed, see column 15, lines 11-20, lines 32-67); and generating a frame feature value comprising numerical information representing a quantity of a feature contained in a frame of the image data using the calculated statistics (i.e., as provided by 101 of Figure 11, and see column 15, lines 7-48).

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3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takashima as applied to claim 37 in the above paragraph (2), and further in view of Nagasaka et al of record (6,400,890).

Takashima discloses substantially the same method of associating frame feature values with a plurality of frames of image data as above, further including substantially the same image retrieval information storing apparatus for storing frame feature values in association with a plurality of frames of image data as claimed in claims 1 and 27, comprising substantially the same calculating unit for calculating statistics of motion vector information related to the image data (i.e., as provided by motion estimation circuit 103 of Figure 11, since scene changes are detected by exploiting of motion vector detection operations performed by motion estimation circuit 103, with the exploiting of motion vectors providing the calculating of statistics of motion vector information, as claimed, see column 15, lines 11-20, lines 32-67); frame feature value generating unit (i.e., as provided by 101 of Figure 11, and see column 15, lines 7-48) for generating a frame feature value which is numerical information representing quantity of a feature contained in a frame of the image data using the calculated statistics, the frame feature value generating unit generates the frame feature value based on the motion vector information (see column 15, lines 7-48); and coding information reading unit (i.e., within 103 of Figure 11) for reading motion vector information from the image data which is coded.

Takashima does not particularly disclose, though, a frame feature value storing unit being connected to the frame feature value generating unit for storing the frame feature value in correlating form with the frame of the image data as claimed in claim 1. However, Nagasaka et al teaches the conventional use of a frame feature value storing unit (i.e., 126 or 128 of Figure 2) for storing frame feature value in correlating form with the frame of the image data, and wherein the frame feature value storing unit (126 or 128 of Figure 2) is connected to the frame feature value generating unit (130 of Figure 2). Therefore, it would have been obvious to one of ordinary skill in the art, having the Takashima and Nagasaka et al references in front of him/her and the general knowledge of frame feature generation and storing, would have had no difficulty in providing the frame feature value storing unit 126 or 128 of Nagasaka et al to be connected to the frame feature value generating unit 101 of Figure 11 of Takashima for the same well known buffering of data for timely processings and featured frame representation purposes as claimed.

(10) Response to Argument

The appellant argued at pages 5-6 of the Brief filed December 15, 2005 in general that there is no proper motivation for combining the Takashima and Nagasaka references and consequently a prima facie case of obviousness has not been established. The appellant further argued that the “timely processings and featured representation purposes” as rejected in the combination does not appear to come from the art of record, does not appear relevant to the claimed invention, and in no manner suggest the combination of Takashima and Nagasaka. The Examiner respectfully disagrees and submits that the frame feature value storing unit 126 or 128 of Figure 2 of Nagasaka et al may obviously be connected to the frame feature value generating unit 101 of Figure 11 of Takashima to thereby store the frame feature value in correlating form

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with the frame of the image data as claimed. As indicated by the Examiner in the above rejection, it is considered obvious that such connection of the memory/storing unit is for the buffering of data for timely processings and featured frame representation purposes.

The appellant argued at pages 6-7 of the Brief filed December 15, 2005 concerning in general that "... these lines of Takashima do not show or suggest the calculation of statistics of motion vector information as claimed. Instead, lines 11-20 of Takashima relate to motion vectors, not statistics of motion vectors as claimed. The fact that motion vectors are "exploited" according to Takashima in no manner suggest that statistics of motion vectors are "calculated" by Takashima as suggested in the Office Action. Column 15, lines 44-48 of Takashima refer to the use of a sum of absolute values of residuals that are obtained at the time of motion vector detection. It appears that the examiner might be interpreting this information to constitute statistics. However, to the extent that statistics are discussed, they are statistics of residuals, not statistics of motion vector information as claimed ... Takashima does not show a calculating unit for calculating statistics of motion vector information ...". The Examiner respectfully disagrees. The Examiner submits again that since Takashima teaches scene changes are detected by exploiting motion vector detection operations performed by motion estimation circuit 103, specifically detection of the motion vector across the interval between I pictures (see column 15, lines 11-20, lines 32-67), the exploiting of the motion vectors thereby provides the calculating of statistics of motion vector information. As pointed out by the appellant, the scene change within Takashima is detected based specifically on the use of a sum of absolute values of residuals that are obtained at the time of motion vector detection (see column 15, lines 44-48 of Takashima). Contrary to the appellant's contention, this information is equivalent to the statistics of motion

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vector information as claimed. This is clearly evident as shown at column 15, lines 49-53 of Takashima wherein it is taught that the residuals found at the time of motion vector detection is utilized for scene change detection of subsequent frames (i.e., at the time of bi-directional predictive coding by the motion vector extending in one or the opposite direction). For reasons above, it is submitted that Takashima teaches the particular features of the calculating unit for calculating statistics of motion vector information related to the image data, as claimed.

The appellant argued at pages 7-8 of the Brief filed December 15, 2006 concerning in general that "... Takashima calculates no statistics of motion vectors and therefore cannot generate a frame feature value from the calculated statistics as claimed. Element 101 of Takashima, referred to in the Office Action, is a scene change detection circuit, but in no manner suggest the claimed step of generating a frame feature value ...". The Examiner wants to point out that though element 101 of Figure 11 of Takashima is a scene change detection circuit, such scene change detection circuit may nevertheless be considered the "frame feature value generating unit" as claimed since circuit 101 uses the calculated statistics from circuit 103 for generating the frame feature value as claimed (see column 15, lines 7-48 of Takashima).

(11) Evidence Appendix

Appellant's statement that there is no evidence pursuant to 1.130, 1.131, or 1.132 or entered by or relied upon by the examiner is correct.


(12) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.


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For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,


RICHARD LEE
PRIMARY EXAMINER

Richard Lee/rl

August 15, 2006 


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